

EXHIBIT A-1

jupyter Forensic_email_Analysis_Final Last Checkpoint: 16 days ago

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JupyterLab Python 3 (ipykernel)

```
display(HTML(caption_html))
```

Exhibit [X] - Metadata of WM-JANA_0000260.pdf (July 18, 2025 Production)

```
{
  "format": "PDF 1.6",
  "title": "",
  "author": "",
  "subject": "",
  "keywords": "",
  "creator": "",
  "producer": "Tesseract v5.2.0.20220712",
  "creationDate": "D:20250716182801-05'00'",
  "modDate": "",
  "trapped": "",
  "encryption": null
}
```

Note. The metadata shows: "producer": "Tesseract v5.2.0.20220712" and "creationDate": "D:20250716182801-05'00'". This means Exhibit 3 was re-generated by the Tesseract OCR engine on July 16, 2025 at 6:28 PM (CST), not preserved from 2023. Microsoft Outlook/Adobe do not embed Tesseract as a PDF producer.

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Code

JupyterLab Python 3 (ipykernel)

In memory Analysis (to preserve Chain of Custody) of WM-JANA_0000260.pdf Metadata

```
[72]: import json, zipfile, fitz
      from IPython.display import display, HTML

      ZIP_PATH = r"C:\Users\aubre\Downloads\ForensicAnalysis\data\WM-JANA VOL003.zip"
      INNER_NAME = "WM-JANA VOL003\IMAGES\IMG001\WM-JANA_0000260.pdf"

      # Read PDF bytes from ZIP and extract metadata
      with zipfile.ZipFile(ZIP_PATH, "r") as zf:
          raw = zf.read(INNER_NAME)

      doc = fitz.open(stream=raw, filetype="pdf")
      metadata = doc.metadata or {}
      doc.close()

      # Build JSON string (stable ordering for the screenshot)
      ordered_keys = ["format", "title", "author", "subject", "keywords", "creator", "producer", "creationDate", "modDate", "trapped", "encryption"]
      pretty_meta = json.dumps({k: metadata.get(k) for k in ordered_keys}, indent=2)

      # Render a neat, bordered panel with caption + JSON
      caption_html = f"""
<div style="border:1px solid #aaa;border-radius:8px;padding:14px 16px;margin:10px 0;font-family:ui-monospace, SFMono-Regular, Menlo, Consolas, 'Liberatic
<div style="font-weight:600;font-size:15px;margin-bottom:8px;">
    Exhibit [X] - Metadata of WM-JANA_0000260.pdf (July 18, 2025 Production)
</div>
<div style="white-space:pre; font-size:13px; line-height:1.35; background:#f7f7f7; padding:10px; border-radius:6px; overflow:auto;">
{pretty_meta}
</div>
<div style="font-size:13px; margin-top:10px;">
    <span style="font-weight:600;">Note.</span> The metadata shows:
    <code>"producer": "Tesseract v5.2.0.20220712"</code> and
    <code>"creationDate": "D:20250716182801-05'00'"</code>.
    This means Exhibit 3 was <em>re-generated by the Tesseract OCR engine</em> on
    <strong>July 16, 2025 at 6:28 PM (CST)</strong>, not preserved from 2023.
    Microsoft Outlook/Adobe do not embed Tesseract as a PDF producer.
</div>
</div>
"""

      display(HTML(caption_html))
```

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JupyterLab 📄 Python 3 (ipykernel) ○ ≡

In memory Analysis (to preserve Chain of Custody) of WM-JANA_0000260.pdf Metadata

[71]: `import zipfile, fitz`



```
ZIP_PATH = r"C:\Users\aubre\Downloads\ForensicAnalysis\data\WM-JANA VOL003.zip"
```

```
INNER_NAME = "WM-JANA VOL003/IMAGES/IMG001/WM-JANA_0000260.pdf"
```

```
with zipfile.ZipFile(ZIP_PATH, "r") as zf:
```

```
    raw = zf.read(INNER_NAME)
```

```
doc = fitz.open(stream=raw, filetype="pdf")
```

```
print("=== Walmart's July 18 Dump: WM-JANA_0000260.pdf Metadata ===")
```

```
print(json.dumps(doc.metadata, indent=2))
```

```
doc.close()
```

```
=== Walmart's July 18 Dump: WM-JANA_0000260.pdf Metadata ===
```

```
{
  "format": "PDF 1.6",
  "title": "",
  "author": "",
  "subject": "",
  "keywords": "",
  "creator": "",
  "producer": "Tesseract v5.2.0.20220712",
  "creationDate": "D:20250716182801-05'00'",
  "modDate": "",
  "trapped": "",
  "encryption": null
}
```